

DOCKET FILE COPY ORIGINAL

RECEIVED

JUN 14 1993

Before the  
FEDERAL COMMUNICATIONS COMMISSION

FEDERAL COMMUNICATIONS COMMISSION

## TABLE OF CONTENTS

EXECUTIVE SUMMARY .....	ii
I.     Permitting ITFS Licensees To Engage In Channel Loading Meets The Needs Of Educators, Students, Programmers, Wireless Cable System Operators And The Public. ....	2
II.    Requiring Ready Recapture Time To Be Spread Among All Channels Will Effectively Undercut The Benefits Of Channel Loading. ....	10
III.   The Commission Should Not Reduce The Flexibility Afforded ITFS Licensees By Imposing Mandatory “Time of Day” or “Day of Week” Programming Requirements. ....	12
IV.    The Commission Must Assure That ITFS Licensees Who Engage In Channel Loading Under The New Rules Not Be Penalized. ....	14
V.     CONCLUSION .....	17

## EXECUTIVE SUMMARY

The Wireless Cable Association International, Inc. (“WCA”) whole-heartedly endorses the Commission’s proposal to afford Instructional Television Fixed Service (“ITFS”) licensees that lease excess capacity to wireless cable operators greater flexibility in scheduling the formal educational and instructional programming required under Sections 74.931(a) and 74.931(e)(2) of the Commission’s Rules. By imposing minimum programming and recapture requirements on each channel, rather than focusing on the total hours of formal educational programming and ITFS programming a licensee transmits or can recapture, the current formulation of Section 74.931 is inconsistent with the best interests of educators, students, wireless cable operators, programming networks and the public. ITFS licensees and wireless cable operators have implemented channel mapping technology to meet their mutual desires to have channels appear to be used full time for either educational or commercial use, while at the same time complying with Sections 74.931(a) and 74.931(e)(2). However, channel mapping imposes financial and operational burdens upon educators and wireless cable operators that limit the ability of ITFS licensees to maximize utilization of their ITFS channels, increase the cost of wireless cable service to the public and cause operational hardships on all concerned.

WCA applauds the Commission for commencing a formal rule making proceeding designed to amend on an interim basis Sections 74.931(a) and 74.931(e)(2) to permit an ITES licensee, if it chooses, to lead its formal educational programming and ITES

RECEIVED

JUN 14 1993

Before the  
**FEDERAL COMMUNICATIONS COMMISSION**  
Washington, D.C. 20554

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

In re )  
 )  
Amendment of Part 74 of the Commission's Rules ) MM Docket No. 93-106  
Governing Use of the Frequencies in the Instructional )  
Television Fixed Service )

**COMMENTS OF  
THE WIRELESS CABLE ASSOCIATION INTERNATIONAL, INC.**

The Wireless Cable Association International, Inc. ("WCA"), by its attorneys, hereby submits its initial comments in response to the *Notice of Proposed Rulemaking* ("NPRM") in the captioned proceeding.<sup>1</sup> WCA strongly supports the Commission's proposal to amend Sections 74.931(a) and 74.931(e)(2) on an interim basis to permit an Instructional Television Fixed Service ("ITFS") licensee to satisfy its minimum formal educational programming and ITFS programming obligations by transmitting such programming on a weekly average of twenty hours for each channel licensed, regardless of the specific channel or channels over which that required programming is transmitted.<sup>2</sup>

---

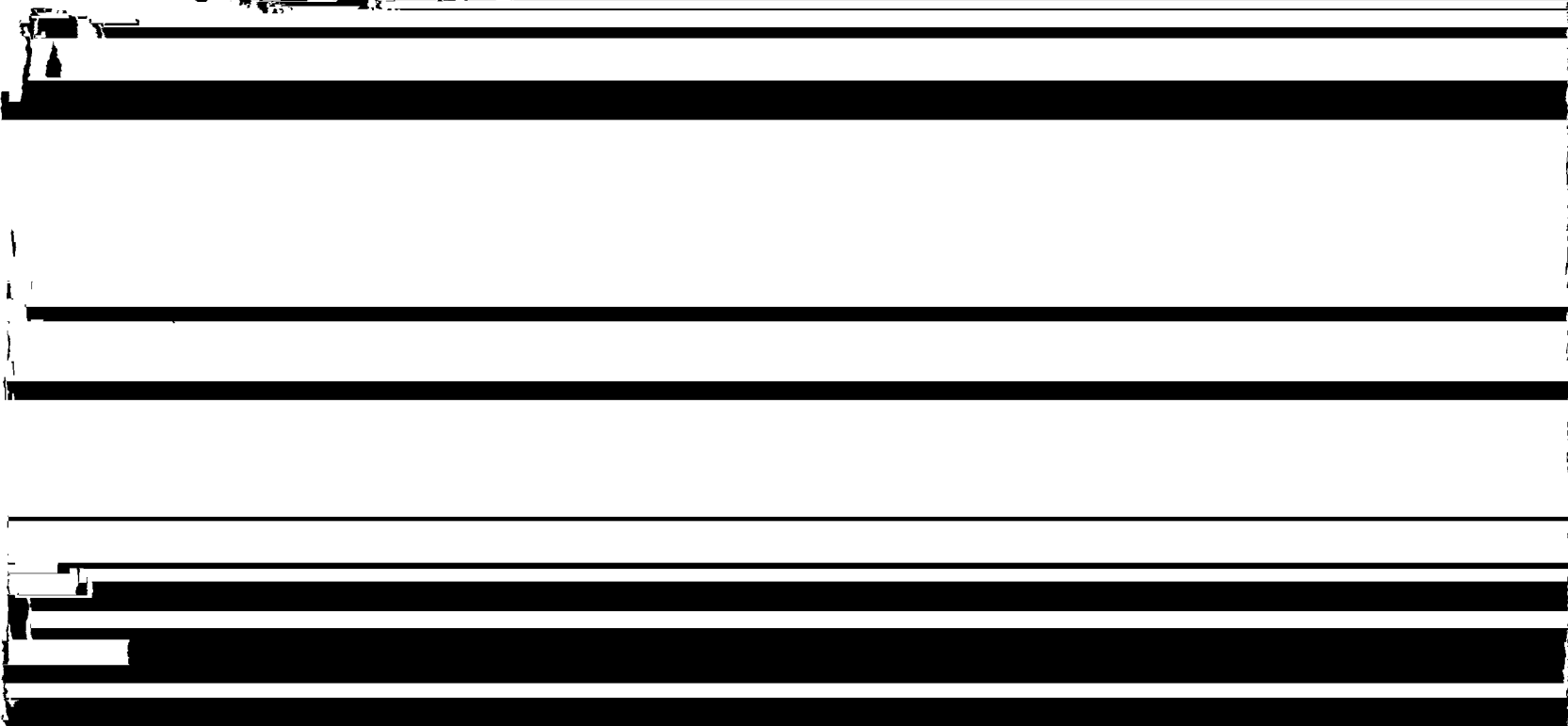
<sup>1</sup>*Amendment of Part 74 of the Commission's Rules Governing Use of the Frequencies in the Instructional Television Fixed Service*, 8 FCC Rcd 2828 (1993)[hereinafter cited as "NPRM"].

<sup>2</sup>WCA has recently commenced discussions with the National ITFS Association ("NIA") in an effort to identify common ground between the two organizations on the issues raised by the NPRM. WCA and NIA hope to be in a position to submit to the Commission a joint reply to the initial comments submitted in response to the NPRM.

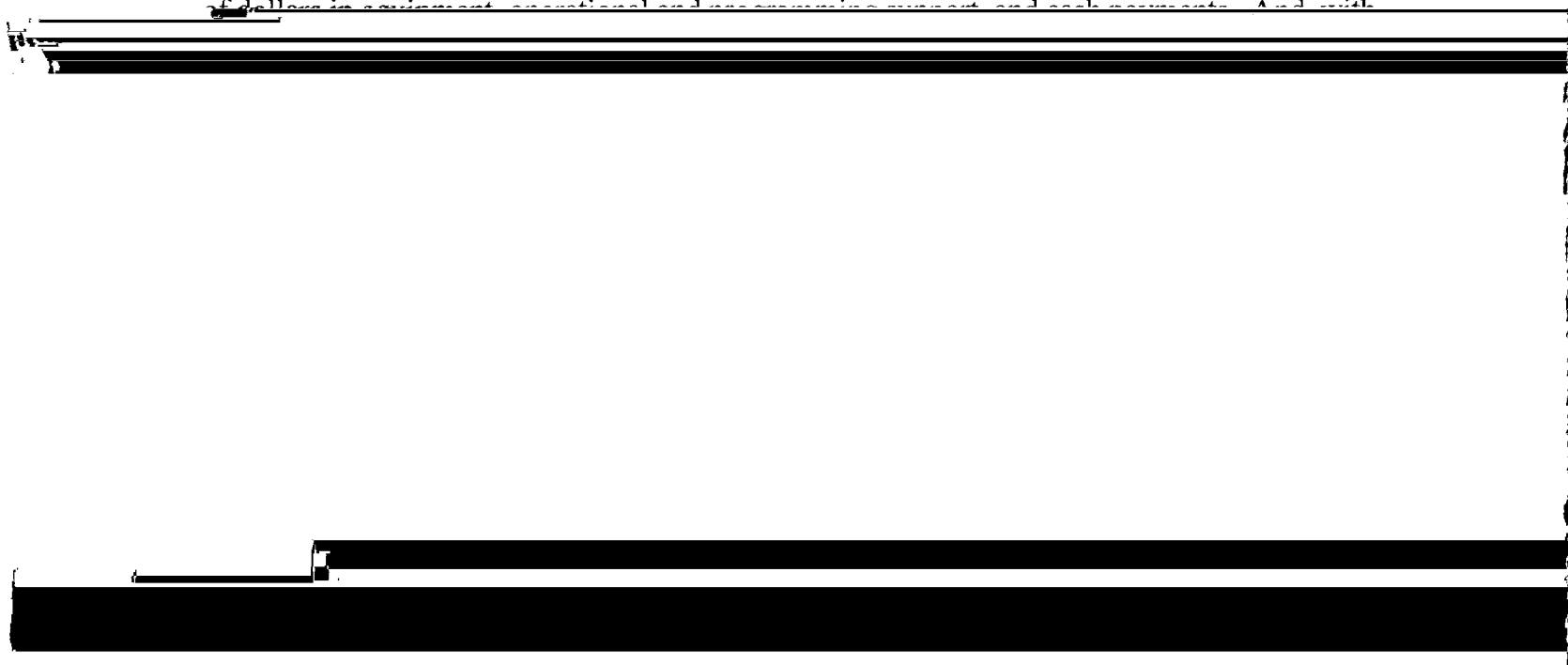
**I. Permitting ITFS Licensees To Engage In Channel Loading Meets The Needs Of Educators, Students, Programmers, Wireless Cable System Operators And The Public.**

The *NPRM* represents the latest effort by the Commission to further the educational mission of the ITFS by promoting the leasing of excess ITFS capacity to wireless cable system operators. As the Commission found when it first permitted ITFS licensees to lease excess capacity to wireless cable operators more than a decade ago, "the cost of constructing and operating an ITFS system represented a significant burden to potential and existing licenses, and . . . additional revenue sources were necessary in order to give the service a chance to flourish."<sup>3</sup> The Commission recognized that permitting ITFS licensees to lease excess capacity would generate revenue sufficient to bring vacant channels on the air, enable ITFS stations to transmit for a greater portion of the day, increase the availability of ITFS programming, and permit ITFS licensees to withstand a diminution in governmental

~~and licensees would be forced to significantly reduce their overall service to the community.~~<sup>4</sup>



Acknowledging that the initial rules governing excess capacity leasing were so restrictive as to deter wireless cable operators from leasing ITFS excess capacity,<sup>5</sup> in recent years the Commission has modified the rules governing the usage of spectrum allocated to the ITFS -- modifications that have already significantly strengthened the symbiotic relationship between educators and wireless cable operators.<sup>6</sup> Perhaps most importantly, the Commission has adjusted its rules governing ITFS excess capacity leasing to provide ITFS licensees far greater flexibility in crafting their excess capacity leasing relationships with wireless cable operators. Thanks in no small part to the Commission's willingness to afford ITFS licensees the flexibility to accommodate the needs of their wireless cable partners, wireless cable operators have already provided ITFS licensees with millions of dollars in equipment, operational and programming support and back payments. And with



Granting ITFS licensees the flexibility to meet their minimum formal educational programming and ITFS programming requirements utilizing less than all of the channels licensed to their ITFS stations until digital compression technology can be practicably implemented will further the Commission's complementary goals of promoting wireless cable as a viable competitor to traditional coaxial cable systems and of facilitating the financial and operational support which leasing excess capacity affords ITFS licensees, while promoting the earliest possible introduction of digital technology.

An ITFS licensee that leases excess capacity to a wireless cable system is required by Section 74.931 of the Commission's Rules to transmit some amount of formal educational programming on each of the channels it is authorized to employ and to transmit a minimum of twelve hours of ITFS programming per week over each of its channels during the first two years of operation and a minimum of twenty hours of ITFS programming per week over each channel thereafter. As the pleadings submitted in response to the Commission's July 23, 1992 *Public Notice*<sup>8</sup> soliciting comment on petitions by four educators for waivers of Sections 74.931(a) and 74.931(3) establish beyond peradventure, those rules have proven unpopular with educators, commercial programming networks and wireless cable operators alike.<sup>9</sup>

---

<sup>8</sup>"Petitions for Waiver of ITFS Rules Requiring Formal Educational Programming on Every ITFS Channel," *Public Notice*, No. 24089 (rel. July 23, 1992).

<sup>9</sup>*See, e.g.*, Comments of Wireless Cable Ass'n Int'l, MMB File Nos. 920219A, *et al*, at 3-9 (filed Aug. 24, 1992)[hereinafter cited as "WCA Comments"]; Comments of Community Telecommunications Network, MMB File Nos. 920219A, *et al*, at 3-4 (filed Aug. 24, 1992);  
(continued...)

Early on in the history of wireless cable the educational, programming and wireless cable communities all concluded that to the maximum extent possible, a given channel should be used exclusively for either educational or commercial programming, and that shared use of any particular channel should be kept to a minimum.<sup>10</sup> To address these concerns, the educators and wireless cable operators introduced channel mapping technology into their systems. By carefully scheduling educational and commercial programming hours, ITFS licensees and wireless cable operators have been able to use channel mapping technology to give viewers the appearance that channels are fully educational or commercial, while shunting programming from channel to channel in satisfaction of the minimum programming requirements imposed by Sections 74.931(a) and 74.931(e). Recognizing that channel mapping meets valid needs of educators, wireless cable operators, programmers, students and consumers, the Commission has decided to:

allow ITFS licensees to lease excess capacity to a “wireless cable” operator in such a manner as to allow the wireless cable operator to use channel mapping technology. This will allow for

---

<sup>9</sup>(...continued)

Comments of Network Instructional TV, Inc., MMB File Nos. 920219A, *et al*, at 3 (filed Aug. 24, 1992); Comments of Cross Country Telecommunications, Inc., MMB File Nos. 920219A, *et al*, at 8 (filed Aug. 24, 1992); Comments of Skyline Entertainment Network (Spokane) Limited Partnership, *et al*, MMB File Nos. 920219A, *et al*, at 16 (filed Aug. 24, 1992); Comments of Consortium of Concerned Wireless Cable Operators, MMB File Nos. 920219A, *et al*, at 14 (filed Aug. 24, 1992).

<sup>10</sup>Indeed, as the Commission has recognized, “most programmers require that programming be supplied on the same channel at all times.” *Gen. Docket No. 90-54 Order on Reconsideration*, *supra* note 5, 6 FCC Rcd at 6774.



sufficient use of all channel capacity while balancing the interests of both wireless cable operators and ITFS licensees.<sup>11</sup>

While channel mapping has provided educators, programmers and wireless cable operators the ability to give viewers the perception that shared channels are being used exclusively for a sole purpose (be it educational or commercial), it has not come without cost. The *NPRM* recognizes that the implementation of channel mapping requires the expenditure of substantial capital for specialized equipment installed at the transmission site and at each ITFS and wireless cable receive site.<sup>12</sup> Not only are channel mapping devices expensive, but one must be installed at every television set. The current state of the art in subscriber premises technology only permits the output of a single channel from the channel mapping device. If teachers in a school, or residents of a home, desire to view simultaneously different channels on different sets, each set must be equipped with its own set-top box.<sup>13</sup> Wireless

---

<sup>11</sup>*Id.*

<sup>12</sup>See *NPRM*, *supra* note 1, 8 FCC Rcd at 2830.

<sup>13</sup>Similarly, because the set-top boxes can only output a single channel at a time, it is not possible for a viewer to record one channel while watching another or to utilize any "picture in picture" features on his or her television set without a second set-top box. When Congress enacted the Cable Television Consumer Protection and Competition Act of 1992 (the "1992 Cable Act"), it expressed a serious concern regarding cable's disabling of premium features of recent model television sets and video cassette recorders. Specifically, with Section 17 of the 1992 Cable Act Congress amended the Communications Act of 1934 by adding a new Section 624A that mandated that the Commission report to Congress on a means of assuring compatibility between cable systems and consumer electronics so that cable subscribers will be able to enjoy the full benefit of both the programming available on cable systems and the functions available on their televisions and video cassette recorders and thereafter adopt such rules as are necessary to assure such compatibility. While Section 17 of the 1992 Cable Act is not directly applicable to wireless cable systems, it clearly establishes Congress' desire that

(continued...)

cable operators must devote scarce resources towards installing multiple set-top boxes in homes desiring service at multiple outlets. And, at many schools the number of television sets capable of receiving ITFS programming is constrained by financial considerations -- set-top boxes for each set cannot be afforded. To wireless cable operators and educators struggling for capital, the money spent on channel mapping could be better spent increasing the support for educational activities, developing additional wireless cable systems, funding the addition of new wireless cable subscribers to existing systems and, ultimately, funding the transition to a digital compression environment.

Given the difficulties inherent in channel mapping, it should come as no surprise that WCA applauds the Commission for proposing to permit an ITFS licensee, if it so desires, to schedule its required weekly minimum of twenty hours of formal educational and ITFS programming per channel on any channel "on a temporary basis, for between three and five years, until digital compression technology is a viable alternative, technologically and economically."<sup>14</sup> By opting for a permissive approach, the Commission has not jeopardized the ability of ITFS licensees that must use multiple channels simultaneously to meet their

---

<sup>13</sup>(...continued)

the full set of features associated with advanced consumer electronic products be available to subscribers to multichannel program distribution services. The abolishment of the requirement that each ITFS channel be utilized for the transmission of formal educational and ITFS programming will eliminate the need for channel mapping consistent with the Congressional policy behind Section 17. Without the need for channel mapping, wireless subscribers will be able to access the full array of features associated with their television receivers and video recorders.

<sup>14</sup>*NPRM*, *supra* note 1, 8 FCC Rcd. at 2831.



Wireless Cable Research and Development Center (the "R&D Center").<sup>18</sup> The R&D Center has been created to introduce digital compression into the wireless cable and ITFS environments as soon as practicable, to develop interactive video, data and voice use of the 2.1 GHz and 2.5 GHz bands and expedite the introduction of advanced consumer and educational applications (such as multimedia applications), and to widely distribute information regarding its activities to the educational and wireless cable communities.

The Commission has sought comment "regarding the duration of the temporary period, emphasizing that the terminus should be the anticipated date when digital compression can be practicably implemented" and has promised that "[a]t the expiration of the temporary period, we shall examine the state of digital technology."<sup>19</sup> At present, it is impossible to predict with certainty when digital compression will become technologically and economically viable for use in the 2.1 GHz and 2.5 GHz bands. The time frame suggested in the *NPRM*, three to five years, is not an unreasonable estimate.<sup>20</sup> The R&D Center intends to be reporting to the Commission periodically on their experimental efforts, and WCA will submit

---

<sup>17</sup>(...continued)

Broadcast Products, Conifer Corp., California Amplifier, Inc., Microwave Filter, NTN Communications, CMIS, Limited, Pacific Monolithics, Inc., Cablewave Systems, and Qualcomm, Inc.

<sup>18</sup>See, e.g. "Wireless Industry Creates R&D Lab," *Cable World*, at 3 (April 26, 1993); "Wireless Cos. Look to Compression," *Multichannel News*, at 2 (April 26, 1993); "In Brief," *Broadcasting*, at 80 (April 26, 1993).

<sup>19</sup>*NPRM*, *supra* note 1, 8 FCC Rcd at 2831.

<sup>20</sup>See *id.*

additional periodic reports to the Commission on the status of digital compression from time to time. Therefore, WCA suggests that the Commission revise its rules to permit channel loading on an interim basis and commit to revisiting those rules in three years, or earlier if the reports it receives suggest that digital compression has become technologically and economically viable. At that time, the Commission can craft a regulatory environment that appropriately balances the legitimate needs of educators and wireless cable operators and establish an appropriate transition to permanent policies governing ITFS channel usage in a digital compression environment.

**II. Requiring Ready Recapture Time To Be Spread Among All Channels Will Effectively Undercut The Benefits Of Channel Loading.**

In the *NPRM*, the Commission has inquired as to whether the ready recapture of all four channels should be required "so that an ITFS licensee may simultaneously transmit its programming on all channels if the need arises."<sup>21</sup> Alternatively, the Commission has inquired as to whether ready recapture of fewer channels should be required.<sup>22</sup> As WCA noted in its initial comments, requiring ready recapture of time on every channel will undercut the goals that channel loading is designed to advance.<sup>23</sup>

So long as its ITFS affiliates can recapture time on each channel, the wireless cable operator likely will have no choice but to install channel mapping technology at each

---

<sup>21</sup>See *id.*, 8 FCC Rcd at 2832.

<sup>22</sup>See *id.*

<sup>23</sup>See WCA Comments, *supra* note 9, at 4.

subscriber's premises upon commencement of service. Otherwise, the ITFS licensee would be able to cause substantial disruption to the wireless cable system merely by exercising its Commission-mandated recapture rights. Given that most programmers require the wireless cable operator to carry their programming twenty-four hours a day,<sup>24</sup> the wireless operator would have no alternative but to employ channel mapping if an ITFS licensee exercised Commission-mandated recapture rights on a channel previously devoted exclusively to non-ITFS programming. Because no wireless cable operator would want to face the additional expense and logistical difficulties inherent in having to make a service call on each subscriber to install channel mapping equipment, that costly equipment would have to be installed at the time service commenced.

Therefore, WCA proposes that each ITFS licensee be afforded the flexibility, if it chooses, to meet its ready recapture obligations utilizing any channel. For example, an ITFS licensee of four channels that is transmitting the required minimum of formal educational and ITFS programming eighty hours per week should be permitted to schedule its mandatory eighty hours of ready recapture time on one, two, three or all four channels in its sole discretion. While WCA certainly believes that an ITFS licensee should be free to negotiate for whatever recapture rights it desires, the cost-savings inherent in channel loading would be severely diminished if the Commission were to mandate that each ITFS licensee maintain recapture rights to all of its channels during the interim period until digital compression becomes practicable.

---

<sup>24</sup>*Gen. Docket No. 90-54 Order on Reconsideration, supra* note 5, 6 FCC Rcd at 6774.

**III. The Commission Should Not Reduce The Flexibility Afforded ITFS Licensees By Imposing Mandatory "Time of Day" or "Day of Week" Programming Requirements.**

In the *NPRM*, the Commission has solicited comment on whether ITFS licensees that engage in channel loading should be required to schedule programming during specific times of the day, such as between the hours of 8:00 am and 10:00 pm, Monday through Saturday.<sup>25</sup> WCA believes that ITFS licensees invariably will be scheduling substantial amounts of educational programming during those hours, and that mandating a reasonable amount of ITFS programming during those hours would artificially alter few ITFS licensees' programming plans. However, reimposing variants on the "time of day" and "day of week" restrictions the Commission eliminated less than two years ago would be philosophically inconsistent with the trend towards affording ITFS licensees maximum flexibility and could perhaps prove counterproductive in some cases.

When the Commission repealed the rules that had required ITFS licensees to meet their minimum programming requirements with transmissions between the hours of 8:00 am and 10:00 pm, Monday through Saturday, it expressly acknowledged that "time of day" and "day of week" restrictions unnecessarily preclude ITFS excess capacity leasing by legitimate ITFS licensees in many instances.<sup>26</sup> While acknowledging the potential for abuse, the Commission chose to rely on its eligibility rules to assure that only entities primarily

---

<sup>25</sup>See *NPRM*, *supra* note 1, 8 FCC Rcd at 2832.

<sup>26</sup>*Gen. Docket No. 90-54 Order on Reconsideration*, *supra* note 5, 6 FCC Rcd at 6774.

interested in distributing ITFS programming become ITFS licensees, and promised to further restrict ITFS eligibility if the need arises.<sup>27</sup>

A similar approach would appear to be in order here. "Time of day" and "day of week" restrictions could preclude some ITFS licensees from enjoying the benefits of channel loading during the interim period contemplated by the Commission. Rather than reduce the flexibility afforded ITFS licensees and wireless cable operators to craft programming schedules that meet their respective needs during this interim period, the



**IV. The Commission Must Assure That ITFS Licensees Who Engage In Channel Loading Under The New Rules Not Be Penalized.**

In its comments in response to the *Public Notice*, WCA urged the Commission to address a significant issue regarding the renewal expectancies of ITFS licensees who lease excess capacity for non-ITFS purposes. As WCA related, at a meeting of WCA's Educational Advisory Board just two days after the release of the Commission's *Public Notice* and in discussions with WCA representatives thereafter, some members of the ITFS community expressed concern that ITFS licensees who do not utilize each of their channels for transmitting substantial quantities of educational programming could find themselves subject to renewal challenges.<sup>29</sup> Those concerns are not without foundation -- although the Commission authorized ITFS licensees to stagger their programming schedules in order to promote the use of channel mapping in the *Order on Reconsideration* in Gen. Docket No. 90-54, that decision included an obscure, but certainly ominous footnote declaring that:

We will continue to review ITFS programming proposals in applications, including the leasing of excess capacity, to assure that the nature and scheduling of ITFS programming is consistent with the primarily educational purpose of this spectrum. In this regard, the appropriate use of educational use of licensed ITFS frequencies will also be reviewed upon renewal.<sup>30</sup>

---

<sup>29</sup>See WCA Comments, *supra* note 9, at 14-16.

<sup>30</sup>Gen. Docket No. 90-54 *Order on Reconsideration*, *supra* note 5, 6 FCC Rcd at 6774 n. 47.

ITFS licensees and wireless cable operators alike fear the Commission may create an environment in which ITFS licensees who lease excess capacity in accordance with the Commission's Rules will be vulnerable to renewal challenges as a result.

Unfortunately, while the Commission has stated that "ITFS licenses are not challengeable at renewal time as are conventional broadcast licenses,"<sup>31</sup> the Commission has never adopted policies to govern the renewal of ITFS licenses. At one time, members of the Commission's staff informally suggested that ITFS renewal applications would not be subject to renewal challenges if the facilities had been operated in compliance with the Commission's rules. The language quoted above, however, suggests that some other approach may govern. While it would be inappropriate for the Commission to utilize this proceeding to establish all of its ITFS renewal policies, the Commission certainly should make clear in adopting the proposals set forth in the *NPRM* that ITFS licensees who take advantage of the opportunities presented by channel loading do not jeopardize themselves at renewal time, so long as they comply with the new version of Section 74.931.

Similarly, the Commission should put to rest the concern expressed by NIA that authorization of channel loading will inevitably lead to a reallocation of ITFS channels for direct licensing to wireless cable operators.<sup>32</sup> It simply need not follow that permitting ITFS licensees the flexibility, if they so choose, to engage in channel loading will inevitably lead

---

<sup>31</sup>*Amendment of Part 74 of the Commission's Rules and Regulations In Regard to the Instructional Television Fixed Service*, MM Docket No. 83-523, 48 Fed. Reg. 29,553, 29,558 (1983).

<sup>32</sup>*See NPRM*, *supra* note 1, 8 FCC Rcd at 2830.

to a reallocation. As WCA emphasized in its reply comments in response to the *Public*

*Notice:*

Under WCA's proposed rule the ITFS licensee, in its sole discretion, would be free to include in its excess capacity leases whatever use and recapture provisions it needs. By affording ITFS licensees additional flexibility in scheduling, however, the proposed rules will make it possible for the first time to eliminate the costly channel mapping technology that restricts, among other things, the amount wireless cable operators can pay for excess airtime. Then it will be up to the individual licensee . . . to determine whether local educational needs are best served by using all four channels or by increasing revenue by making one, two or three available on a full time basis. And, from WCA's initial comments, it should be obvious that WCA is not seeking to have any ITFS channels licensed directly to the MMDS operator; to the contrary, WCA has urged the Commission to expressly declare that no ITFS licensee who takes advantage of the new rules will be putting its license in jeopardy.<sup>33</sup>

The record before the Commission reflects that ITFS excess capacity leasing has been responsible for an increase in the number of operating ITFS stations, the transmission of far greater amounts of educational programming, and the installation of additional ITFS receive sites. Indeed, in the *NPRM* the Commission "acknowledge[s] the role of the wireless cable industry in reinvigorating the ITFS service."<sup>34</sup> By authorizing channel loading, the Commission can further those trends, while at the same time promoting the emergence of competition to cable. It would be passing strange for the Commission to

---

<sup>33</sup>Reply Comments of Wireless Cable Ass'n Int'l, MMB File Nos. 920219A, *et al*, at 4-5 (filed Sept. 8, 1992).

<sup>34</sup>*NPRM*, *supra* note 1, 8 FCC Rcd at 2832.

In sum, it is evident that Sections 74.931(a) and 74.931(e) are inconsistent with the Commission's efforts both to increase the productive use of the ITFS and to promote wireless cable as a viable competitor to cable. Now is the time for the Commission to eliminate the need for costly channel mapping technology on an interim basis until digital compression becomes practicable. By doing so, the Commission will not only be lowering the costs imposed on educators and wireless cable operators, it will also be ushering in the introduction of digital technology to the ITFS and wireless cable.